CERTIFICATE OF MAPPLICATE OF MAPPLICANT (S): Mark V. H		Docket No. GL-01-1					
Serial No 10/077,701	Filing Date February 14, 2002	©Examiner PR 1 9 2002 UNKNOWN		Group Art Unit 1712			
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	s IDS, with references, Form P th the United States Postal Server for Patents, Washington, D.C	. 20231 on April /					
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PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:

Mark V. Hanson et al.

Examiner:

UNKNOWN

U.S. Serial No. 10/077,701

Group Art Unit:

1712

Filed February 14, 2002

Attorney Docket No. GL-01-1

For:

NOVEL HYDROXYARYL PHOSPHINE : OXIDES, GLYCIDYL ETHERS AND EPOXY COMPOSITIONS, COMPOSITES : AND LAMINATES DERIVED THERE-

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<u>INFORMATION DISCLOSURE STATEMENT</u> <u>UNDER 37 C.F.R. 1.56, 1.97 AND 1.98</u>

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Sir:

Applicants submit herewith patents, publications, and other information of which they are aware, which they believe may be material, as defined in 37 C.F.R. 1.56(b), to the examination of this application and in respect of which there may be a duty to disclose in accordance with 37 C.F.R. 1.56(a). While information referred to in this Information Disclosure Statement may be material pursuant to 37 C.F.R. 1.56(b), the filing of this Information Disclosure Statement is not intended to, pursuant to 37 C.F.R. 1.97(h), constitute an admission that any patent, publication or other information referred to is, or is considered to be, material to the patentability of this invention. Pursuant to 37 C.F.R. 1.97(g), the filing of this Information Disclosure Statement shall not be construed to mean that a search has been made or that no other material information exists.

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(a) This information Disclosure Statement is filed within the period set forth in §1.97(b) because it accompanies the new patent application submitted herewith, is filed within three months of the filing date of a national application or within three months of the date of entry of the national stage as set forth in §1.491 in an international application. Or is believed to be filed before the mailing date of a first Office Action on the merits, whichever event occurs last. However, in the event that the first office action has been mailed, the Commissioner is authorized to charge any fees under 37 C.F.R. 1.17(p) or credit any overpayment to Account No. 50-0935.

This Information Disclosure Statement is filed after the period set forth in 37 C.F.R. 1.97(b), but is believed to be filed before the mailing date of a final action under §1.311, whichever occurs first.

(1) The undersigned attorney certifies that each item of information contained in this Information Disclosure Statement was cited in a communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of this statement:

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(3) This Information Disclosure Statement is accompanied by a transmittal letter in which payment of the fee set forth in \$1.17(p) and required by 37 C.F.R. 1.97 (c) is authorized.

A. Patents

- 1. U.S. Patent No. 3,751,481, issued August 7, 1973, entitled "Process for the Production of Tertiary Phosphines", of *K. Weinberg*;
- 2. U.S. Patent No. 3,784,638, issued January 8, 1974, entitled "Preparation of Tertiatry Organo-Phosphine Oxides", of *R.F. Lambert*;
- 3. U.S. Patent No. 3,852,362, issued December 3, 1974, entitled "Preparation of Tertiary Organophosphine Oxides", of *R.F. Lambert*;
- 4. U.S. Patent No. 4,126,602, issued November 21, 1978, entitled "Aromatic Polyesters Having Improved Properties", of *G. Salee*;
- 5. U.S. Patent No. 4,187,259, issued February 5, 1980, entitled "Polymer Blends With Improved Hydrolytic Stability Comprising a Linear Aromatic Polyester and a Methacrylate Cross-Linked Acrylate Copolymer", of *G. Salee*;
- 6. U.S. Patent No. 4,211,687, issued July 8, 1980, entitled "Polymer blends With Improved Flame Retardance", of *G. Salee*;
- 7. U.S. Patent No. 4,221,694, issued September 9, 1980, entitled "Glass-Filled Polybutylene Terephthalate Compositions of Diminished Warpage", of *G. Salee*:
- 8. U.S. Patent No. 4,251,429, issued February 17, 1981, entitled "Polymer Blends With Improved Flame Retardance", of *G. Salee*;
- 9. U.S. Patent No. 4,256,625, issued March 17, 1981, entitled "Polyester Compositions of Enhanced Tensile Strength on Ageing", of *N.W. Dachs*:
- 10. U.S. Patent No. 4,284,549, issued August 18, 1981, entitled "Polymer Blends With Improved Hydrolytic Stability", of *G. Salee*:
- 11. U.S. Patent No. 4,345,059, issued August 17, 1982, entitled "Fire Retardant Fpoxy Resins Containing 3-Hydroxyalkylphosphine Oxides", of *E.R. Fretz. Jr., et al.*;
- 12. U.S. Patent No. 4,444,960, issued April 24, 1984, entitled "Polymer Blends With Improved Hydrolytic Stability", of *G. Salee et al.*;
- 13. U.S. Patent No. 4,866,155, issued September 12, 1989, entitled "Polyester of Bis(2-(Hydroxyphenyl)-Hexa-Fluoroisopropyl)Diphenyl Ether", of *W.H. Mueller et al*:

- 14. U.S. Patent No. 5,376,453, issued December 27, 1994, entitled "Epoxy Resin Compounds in Admixture with Glycidyl Phosphorus Compounds and Heterocyclic Polyamides", of *W. von Gentzkow et al.*;
- 15. U.S. Patent No. 5,399.654, issued March 21, 1995, entitled "Method for the Production of Phosphorus-Containing Aromatic Polyester", of Y.H. Ko et al.:
- 16. U.S. Patent No. 5,458,978, issued October 17, 1995, entitled "Epoxy Resin Systems Containing Glycidylated Aromatic Amines, Phosphorus Epoxies and Metal Salts", of *A. Bőttcher et al.*;
- 17. U.S. Patent No. 5,508,462, issued April 16, 1996, entitled "Process for Making Hydroxy-Terminated Aromatic Oligomeric Phosphates", of *D.A. Bright et al.*;
- 18. U.S. Patent No. 5,576,357, issued November 19, 1996, entitled "One-Component Reactive Resin System Comprising a Cure-Inhibiting Glycidyl Phosphorus Compound", of *H. Bayer et al.*;
- 19. U.S. Patent No. 5,587,243, issued December 24, 1996, entitled "Epoxy Resin Mixtures Containing Phosphonic/Phosphinic Acid Anyhdride Adducts". of *W. von Gentzkow et al.*;
- 20. U.S. Patent 5,648,171, issued July 15, 1997, entitled "Epoxy Resin Mixtures Containing Phosphorus Acid/Epoxy Resin Adducts", of *W. von Gentzkow et al.*; and
- 21. U.S. Patent No. 6,097,100, issued August 1, 2000, entitled "Resin Sealed Semiconductor Devices and a Process for Manufacturing the Same", of *S. Eguchi et al.*

B. Foreign Patent Documents

- 1. PCT Publication No. WO 99/00451, published January 7, 1999, of The Dow Chemical Company;
- 2. PCT Publication No. WO 01/42253 A2, published June 14, 2001, of The Dow Chemical Company:
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- 4. EPO Publication No. 0 412 425 B1, published August 1, 1990, of Siemens Aktiengesellschaft;

- 5. EPO Publication No. 0 795570 A1, published September 17, 1997, of Toshiba Chemical Corporation:
- 6. EPO Publication 1 116 774 A2, published July 18, 2001, of Sumitomo Bakelite Company Limited:
- 7. Japanese Publication No. 5-57991, published August 25, 1993, of Sumitomo Chemical Co., Ltd.;
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- German Offenlegungsschrift DE 3510416 A1, published September 25, 1986, of Röhm GmbH; and
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C. Publications

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- "Synthesis and Solid-State Structures of Substituted Arylphosphine Oxides". Craig M. Whitaker et al., J. Org. Chem. 1995, 60, 3499-3508;
- 3. "Derivatives of Triphenylphosphine and Triphenylphosphine Oxide", Allen E. Senear et al., J. Org. Chem. 1960, 25(10), pp. 2001-2006;
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- 5. "The Mass Spectra of Some *para* Substituted Triarylphosphines and Triarylphoshpine Oxides", G. Marshall, Organic Mass Spectrometry, Vol. 16, No. 6, 1981, pp. 272-274;
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- *10. "Sn-Zn System Lead Free Solder Paste", Japan Printed Circuit Association, April 2001, pp. 1-18;
- 11. "Phosphorus-Containing Epoxy for Flame Retardant. I. Synthesis, Thermal, and Flame-Retardant Properties", Y-L Liu et al., Journal of Applied Polymer Science, Vol. 61, 1996, pp. 613-621;
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- 17. "Self-extinguishing Epoxy Resins without Flame Retardants: Their Potential Use in Electronics", Y. Kiuchi et al., The 12th Annual BCC Conference on Flame Retardancy, Recent Advances in Flame Retardancy of Polymeric Materials, May 21-23, 2001;
- 48. "Synthesis, Characterization, Thermal, and Flame Retardant Properties of Phosphate-Based Epoxy Resins", Y-L Liu et al., John Wiley & Sons, Inc., 1997, pp. 565-574;

- 19. "Copper-Clad Laminates for Use as Printed Circuit Boards", M. Perry et al., Plastics and Resisn Compositions, Royal Society of Chemistry, 1995, pp.74-99; and
- 20. "Nucleophotic Constants of Diphenyl P", Teoreticheskeye Leksperimental naya Khimiia, v. 3(6), 1967, pp. 824-829.

Respectfully submitted.

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April 16, 2002

ATTY DOCKET NO SERIAL NO GL-01-1 10/077,701 INFORMATION DISCLOSURE CITATION Mark V. Hanson et al. (Use several sheets if necessary, FILING **GROUP** APR 1 9 2002 February 14, 2002 1712 U.S. FATENT DOCUMENTS *EXAMINER DOCUMENT NUMBER FILING DATE NAME CLASS SUBCLASS IN TIAL IF APPROPRIATE U.S. Patent 3,784,638 1/8/74 R.F. Lambert 260 **526S** U.S. Patent 3.852.362 12/3/74 R.F. Lambert 260 606.5P U.S. Patent 4,126,602 11/21/78 G. Salee 260 40R TOR CR U.S. Patent 4,187,259 2/5/80 G. Salee 525 219 U.S. Patent 4.211.687 7/8/80 G. Salee 260 40R U.S. Patent 4,221,694 9/9/80 G. Salee 260 40R U.S. Patent 4,251,429 2/17/81 G. Salee 260 40R U.S. Patent 4,256,625 3/17/81 N.W. Dachs 260 40R U.S. Patent 4,284,549 8/18/81 G. Salee 260 **40R** U.S. Patent 4,345,059 8/17/82 E.R. Fretz, Jr. et al. 528 102 U.S. Patent 4,444,960 4/24/84 G. Salee et al 525 534 FOREIGN PATENT DOCUMENTS TRANSLATION. DOCUMENT NUMBER DATE COUNTRY CLASS SUBCLASS YES NO PCT WO 99/00451 1/7/99 **PCT** C08K 5/5333 J PCT WO 01/42253 A2 6/14/01 **PCT** C07F 9/53 PCT WO 01/42359 A1 6/14/02 **PCT** C08L 63/00 EPO 0 412 425 B1 🗸 2/13/91 **EPO C08G** 59/40 9/17/97 EPO 0 795 570 A1 : **fEPO** C08G 59/40

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